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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,114	05/06/2004	Heinfried Hoffmann	P04,0153	7271
26574 7590 02/26/2007 SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			EXAMINER BARAN, MARY C	
			ART UNIT	PAPER NUMBER
			2857	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/840,114

Applicant(s)

HOFFMANN ET AL.

Examiner

Mary Kate B. Baran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10 and 13-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The action is responsive to the Amendment filed on 10 May 2006. Claims 1-7, 9, 10 and 13-21 are pending. Claim 19 is amended. Claims 20 and 21 are new.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites, "the method of claim 9"; however, claim 9 recites "a device to test the operating safety of a process control device". It is not clear if claim 21 is meant to be a method or a device.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9, 10 and 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Snowbarger et al. (U.S. Patent No. 7,079,021) (hereinafter Snowbarger).

Referring to claim 1, Snowbarger teaches a method to test operating safety of a process control device (see Snowbarger, column 3 lines 6-14) designed to close or open a pipe of a process system in the event of an incident (see Snowbarger, column 3 lines 25-35) comprising a process valve and a pneumatic actuator to move the valve, a position controller in a safety circuit, the pneumatic actuator being coupled to a control unit that is connected to the position controller for exchange of control signals, such that the pneumatic actuator can be operated by way of the control unit to move process valve and the process valve can be moved from an initial condition to a final condition in the event of an incident by a control of the actuator by the control unit, and a test cycle for the process control device (see Snowbarger, column 3 lines 25-43) comprising: generating a control signal for partial movement of the process valve aided by the position controller (see Snowbarger, column 3 lines 36-38); transferring the control signal from the position controller to the control unit via a signal connection (see Snowbarger, column 4 lines 35-42); controlling the pneumatic actuator dependent on the control signal aided by the control unit to operate the pneumatic actuator for the partial movement of the process value from the initial condition (see Snowbarger, column 4 lines 42-49); detecting, via a measurement device, measurement signals that indicate the partial movement of the process valve from the initial condition (see Snowbarger, column 3 lines 36-43); and returning the control element to the initial condition (see Snowbarger, column 3 lines 39-40).

Referring to claim 2, Snowbarger teaches detecting time resolved path signals upon detection of the measurement signals with the aid of the measurement device (see Snowbarger, column 9 lines 42-48).

Referring to claim 3, Snowbarger teaches determining movement parameters from the detected time resolved path signals (see Snowbarger, column 9 lines 52-62).

Referring to claim 4, Snowbarger teaches executing a leakage measurement upon detection of the measurement signals, aided by the measurement device (see Snowbarger, column 4 lines 23-27).

Referring to claim 5, Snowbarger teaches electronically logging of a course of the test cycle and electronically storing the course in a storage device (see Snowbarger, column 3 line 51-62).

Referring to claim 6, Snowbarger teaches activating the test cycle for the process control device utilizing a remote control (see Snowbarger, column 4 lines 50-67).

Referring to claim 7, Snowbarger teaches partially venting the actuator, which is a pneumatic actuator, to partially move the control element as a reaction to the controlling by the control unit (see Snowbarger, column 4 lines 35-49).

Referring to claim 9, Snowbarger teaches a device to test the operating safety of a process control device designed to close or open a pipe of a process system in the event of an incident (see Snowbarger, column 3 lines 25-35), comprising: a process valve (see Snowbarger, column 3 lines 25-35); an actuator to move the process valve (see Snowbarger, column 4 lines 6-11); a position controller in a safety circuit (see Snowbarger, column 4 lines 35-36); a control unit that is connected with the position controller configured to exchange control signals and is coupled to the actuator, such that the actuator can be operated via the control unit to move the control element in order to move the control element from an initial condition to a final condition in the event of incident with the aid of a controlling of the actuator by the control unit (see Snowbarger, column 3 lines 35-49); a measurement device configured to acquire measurement signals that indicated a movement of the process valve from the initial condition (see Snowbarger, column 3 lines 36-43); the position controller comprising a control signal generator configured to generate a control signal for a partial movement of the process valve in the course of a test cycle for the process control device, and to transmit the control signal via a signal connection from the position controller to the control unit (see Snowbarger, column 4 lines 35-49).

Referring to claim 10, Snowbarger teaches that the control unit and the position controller are redundantly coupled to the actuator to operate the actuator (see Snowbarger, column 4 lines 11-49 and Figure 1).

Referring to claim 15, Snowbarger teaches a suppression device to suppress the generation of the control signal for the partial movement of the actuator in the course of the test cycle (see Snowbarger, column 6 lines 41-43).

Referring to claim 16, Snowbarger teaches a storage device configured to store electronic information concerning the test cycle (see Snowbarger, column 3 lines 51-62).

Referring to claim 17, Snowbarger teaches an evaluation device configured to automatically evaluate the measurement signals that indicate a movement of the control element from the initial condition (see Snowbarger, column 4 lines 25-27).

Referring to claim 18, Snowbarger teaches that the detecting is performed as a direct detecting of the process valve and the measurement signals are directly taken from the process valve (see Snowbarger, column 3 lines 40-43).

Referring to claim 19, Snowbarger teaches that the measurement device is located between the process valve and the actuator (see Snowbarger, Figure 1).

Referring to claims 20 and 21, Snowbarger teaches that the control signal is an electrical control signal that is generated by the position controller and transferred to the control unit (see Snowbarger, column 4 lines 35-49).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Snowbarger et al. (U.S. Patent No. 7,079,021) (hereinafter Snowbarger) in view of Rosenberg (U.S. Patent No. 6,300,937):

Referring to claim 13, Snowbarger teaches all the features of the claimed invention except that the measurement device comprises a motion sensor configured to detect the partial movement of the control element.

Rosenberg teaches that the measurement device comprises a motion sensor configured to detect the partial movement of the control element (see Rosenberg, column 8 line 66 – column 9 line 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Snowbarger to include the teachings of Rosenberg, because having a motion sensor in the feedback loop would have allowed the skilled artisan to

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detect any deliberate or unwanted motion for normal control or alarm generation, respectively.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Snowbarger et al. (U.S. Patent No. 7,079,021) (hereinafter Snowbarger) in view of Scheideler (U.S. PG-Pub No. US2003/0188583).

Referring to claim 14, Snowbarger teaches all the features of the claimed invention except that the measurement device comprises a motion sensor configured to detect the partial movement of the control element.

Scheideler teaches that the measurement device comprises a motion sensor configured to detect the partial movement of the control element (see Scheideler, page 4 [0088]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Snowbarger to include the teachings of Scheideler, because having a sound sensor in the feedback loop would have allowed the skilled artisan to detect any deliberate or unwanted vibration for normal control or alarm generation, respectively.

Response to Arguments

6. Applicant's arguments filed 1 December 2006 have been fully considered but they are not persuasive.

Applicant argues that Snowbarger does not teach "transferring the control signal from the position controller to the control unit via a signal connection." However, Applicant's arguments are not well taken. Snowbarger teaches an emergency shutdown controller (i.e. position controller) connected to the DVC (i.e. control unit). The emergency shutdown controller sends a target plug position signal (i.e. control signal) to the DVC via electrical lines (see Snowbarger, column 4 lines 35-42). Therefore, Snowbarger teaches transferring the control signal from the position controller to the control unit via a signal connection (see Snowbarger, column 4 lines 35-42).

Applicant further argues that Snowbarger does not teach "controlling the pneumatic actuator depending on the control signal aided by the control unit to operate the pneumatic actuator for the partial movement of the process valve from the initial condition." However, Applicant's are not well taken. Snowbarger teaches that the DVC (i.e. control unit) continuously adjusts the actuator output pressure to move the position of the value plug to the desired target position, sent to the DVC from the emergency shutdown controller (i.e. position controller) (see Snowbarger, column 4 lines 35-49). Therefore, Snowbarger teaches controlling the pneumatic actuator depending on the control signal aided by the control unit to operate the pneumatic actuator for the partial movement of the process valve from the initial condition (see Snowbarger, column 4 lines 35-49).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B. Baran whose telephone number is (571) 272-2211. The examiner can normally be reached on Monday - Friday from 9:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

18 February 2007

